

DATA EVALUATION REVIEW 1

I. Study Type: comments on previous reviews, not dealt with in other DERs

II. Citation:

Erstfeld, K.M. Ignite Herbicide®: Petitioner Response to the EPA Environmental Fate and Groundwater Branch Review Dated June 28, 1990 for Data Requirements for Ignite Herbicide (Glufosinate Ammonium) for Full Registration on Terrestrial Food Crops, Terrestrial Nonfood, Domestic Outdoor and Greenhouse Uses. submitted by Hoechst Celanese Corp., Somerville, NJ. received EPA 6/21/91 under MRID# 419201-01

III. Reviewer:

Typed Name: E. Brinson Conerly-Perks
Title: Chemist, Review Section 3
Organization: EFGWB/EFED/OPP

IV. Conclusions:

Soil photolysis, aerobic soil metabolism, laboratory volatility, and confined rotational crop accumulation will be dealt with more fully in other DERs in this review. Other studies are discussed below.

terrestrial field dissipation

EPA comment -- *The soil analysis taken immediately after treatment appears to establish that the level of treatment was incorrect. It is given as 0.37 ppm in a 4 inch soil layer, but should be in the order of 1.8 ppm for a three inch soil layer, or 1.4 ppm for the four inch core analyzed.*

Applicant reply -- *[discussion of measurements and dilutions]...The rate of 1.8 lb AI/A plus overage was ...applied.*

EPA response -- *While the measurements and dilutions may have been correctly carried out, the analytical results nevertheless do not confirm this. The intent of the previous EPA comment was to elicit some explanation from the applicant as to why the analytical results (0.37 ppm) were so different from the theoretical value (1.8 ppm). No such explanation was provided. This deficiency is not resolved.*

EPA comment -- *...Analyses appear to have been based on what is essentially a single soil sample...*

Applicant reply -- *...One (1) composited soil core sample from each of three replicate plots was analyzed from the study. Thus, three replicate samples were analyzed, not three analytical runs...*

EPA response -- *We appreciate the clarification. This deficiency is resolved.*

bcp

Glufosinate Ammonium 91-0749



2035519

rotational crop accumulation

EPA comment -- ...For these studies to be fully acceptable, the applicant should demonstrate that the method is the best currently available. Also, a sample chromatogram showing separation of the three reference (authentic) compounds is necessary for complete acceptability.

Applicant reply -- The sensitivity of the analytical method for both studies is 0.05 ppm and is, in our opinion, the best currently available technology for determining residues under field environmental conditions... The level of sensitivity of the method [GC] is limited to the inherent sensitivity of the GC detector to this simple molecule....Typical GC chromatograms illustrating the separation of the mixture of authentic compounds under differing GC conditions are attached in volume 7 of 8, this submission....In addition, an updated method to determine the residues of HOE 039866 and metabolites HOE 061517 and HOE 064619 in soil ... has been validated and is attached as Volume 8 of 8, this submission.

EPA response -- *We appreciate the clarification. This deficiency is resolved.*

V. Materials and Methods:	n.a.
VI. Study Author's Results and/or Conclusions:	n.a.
VII. Reviewer's Comments:	see above
VIII. CBI Information Addendum: attached	n.a.